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On the influence of

litrations, 1

houses - 15

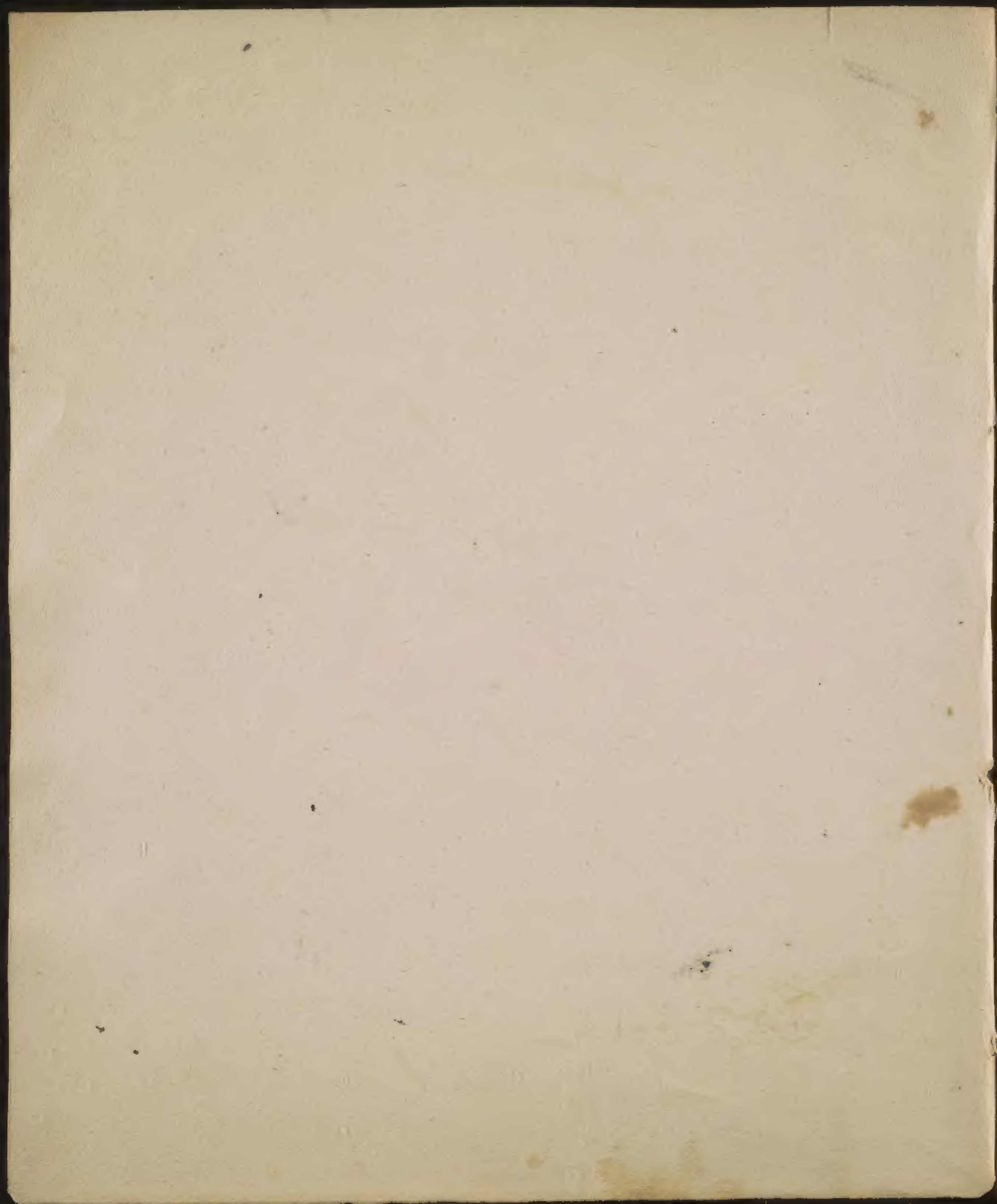
Change of litrations 19

Thunder & lightning 23.

Earthquakes - 26

Sound - 26

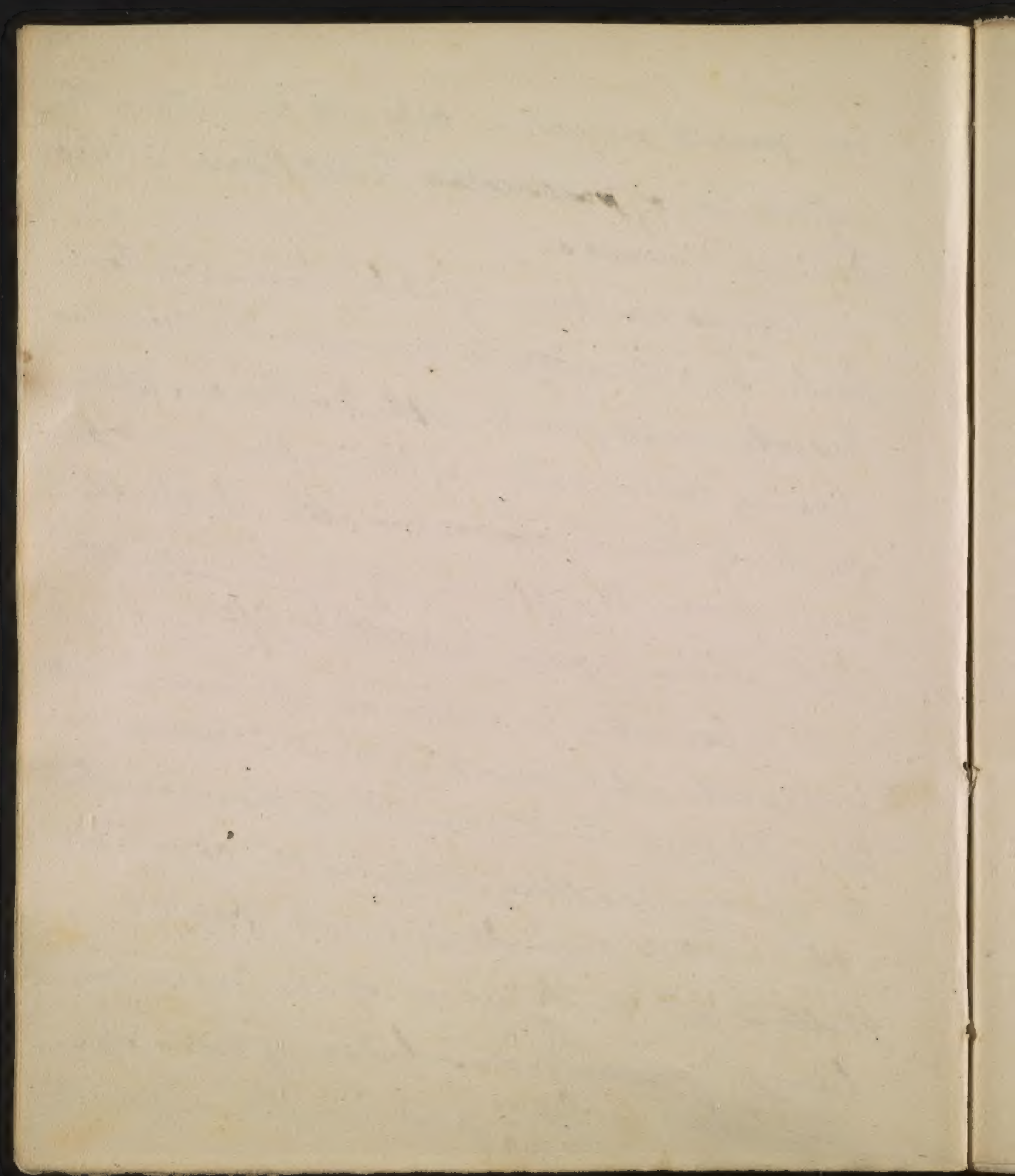
of the heavenly bodies 28



1
We proceed next in order to mention the
influence of ~~particular~~ situations in pro-
ducing diseases.

These are diversified by Country, town
Soil, by vicinity to mountains, marshes
Deserts, mill ponds, & the seashore. After
having taken notice of the influence of
each of them, ~~upon health~~, I shall
mention the effects of a change of
situation upon health & life.

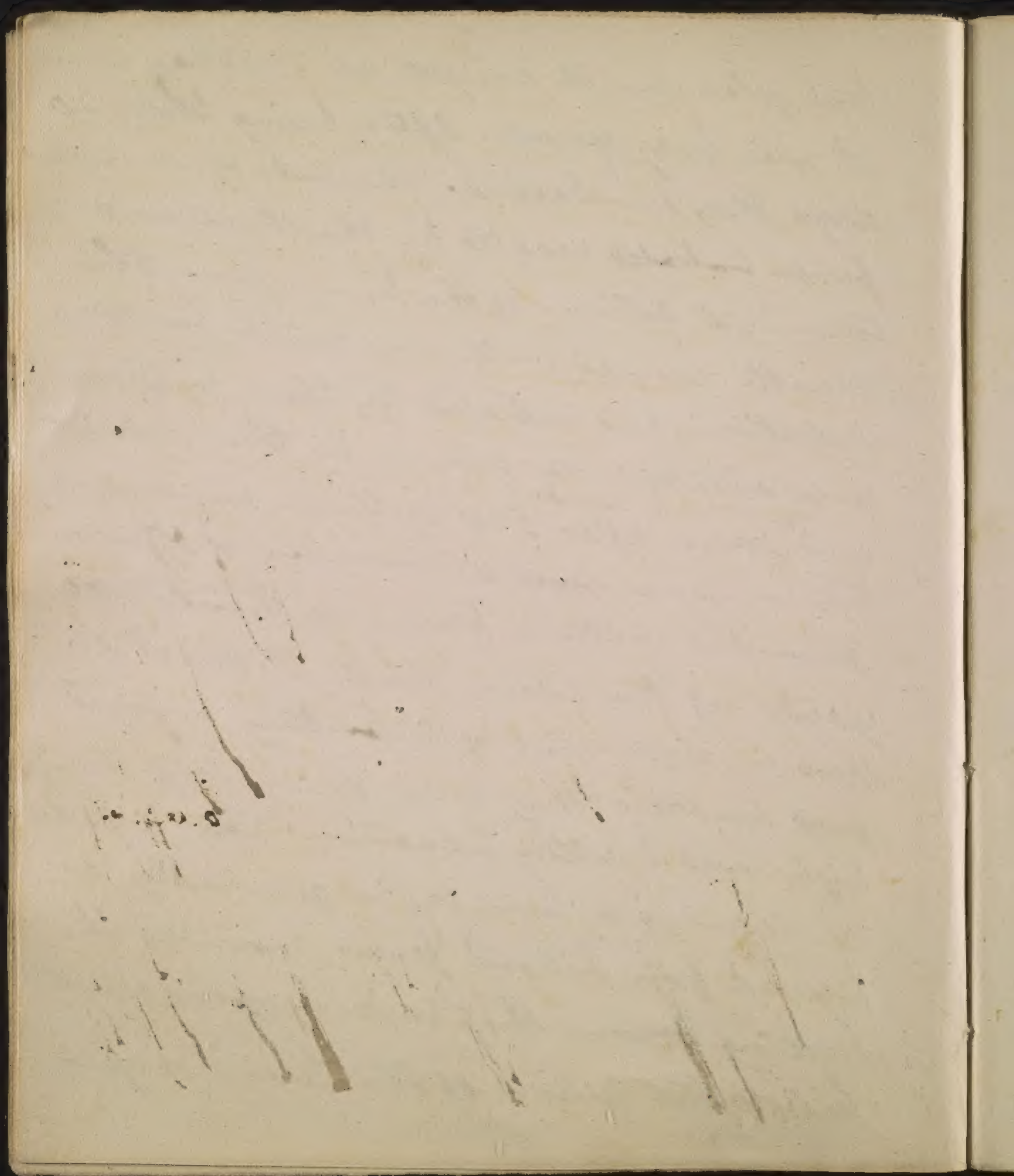
1 The Country is more or less favourable
to health, & life according as it is more or
less cleared or cultivated. A new country
is always healthy. This is the case in
the wettest grounds, provided they are
sheltered from the rays of the sun by
large & numerous bodies of trees. In
the Delaware state and in some parts



of North Carolina men often work for
 weeks together in the cedar swamps in
 making shingles in the summer &
 Autumn without contracting the
 least indisposition, whilst all the
 neighbouring country ~~is~~ exposed to the
 action of the here is afflicted with re-
 -mitting & intermitting fevers. The
 least aperture in the woods through which
 the rays of the sun can act upon the
 ground destroys the healthiness of these
 situations. A memorable instance of
 which is mentioned is ~~mentioned~~ in a
 letter from Dr Moodie to Mr White an
 Apothecary at Bath. He says 1500
 soldiers encamped at Timbura in the
 East Indies in Septem^r 1801 in a valley
 covered with lofty trees. no exhalation

[Faint, illegible handwriting, likely bleed-through from the reverse side of the page.]

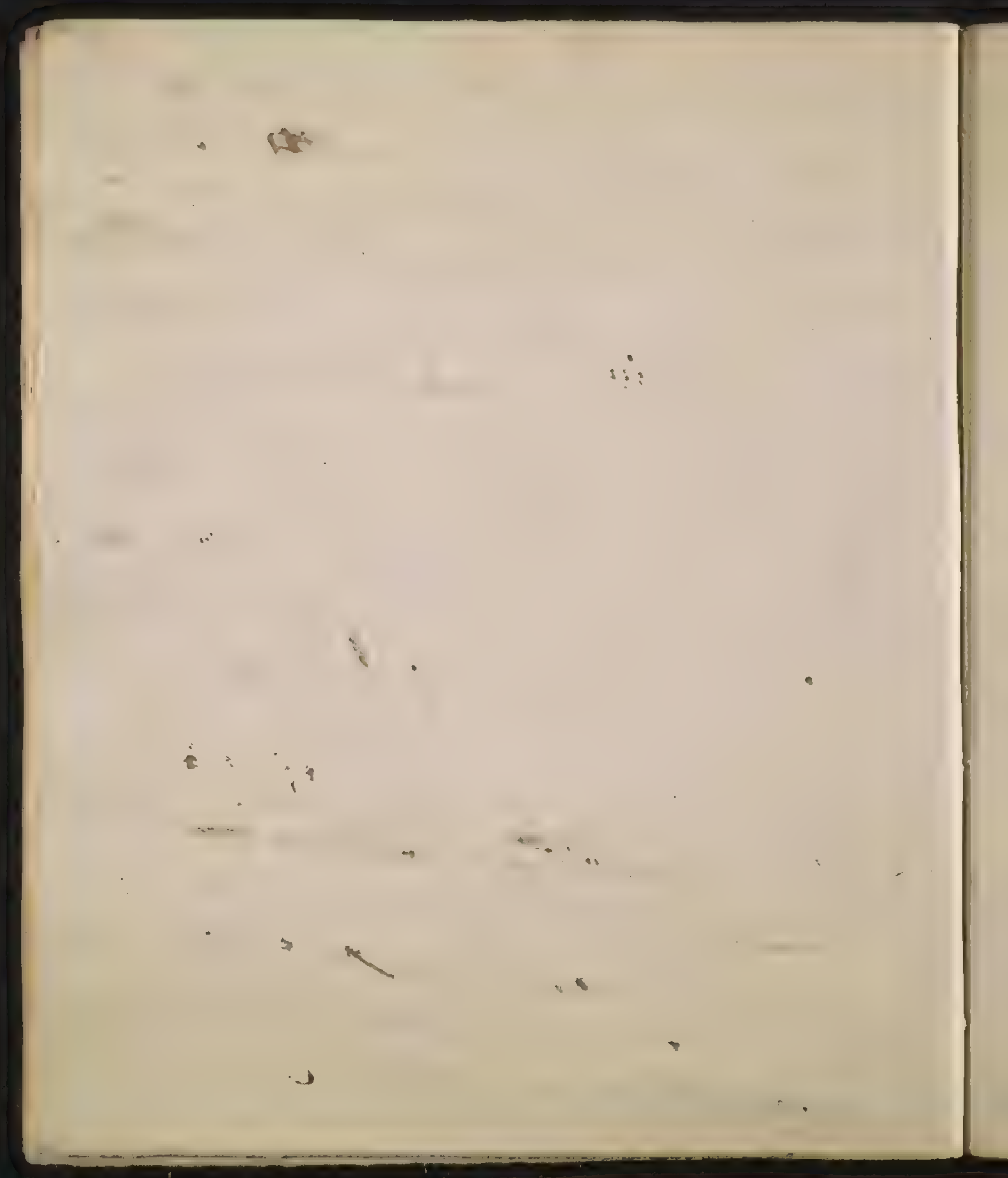
3
took place in it ^{erupt} at mid day when
it was very great. After being there 20
days they embarked. The seeds of a malignant
fever ~~injected~~ created by the throat and
transient action of the sun upon the
earth covered with materials for pu-
refaction, and inhaled by these soldiers,
were excited ^{into} ~~into~~ action by their exercise
and soon after ^{wards} 500 of them among
whom were ~~some~~ a number of officers
perished with a fever. ⁱⁿ ~~without~~ 200
yards of the above forest, Dr Moodie
saw a regiment of Artillery enjoyed
good health. They were encamped in a
high and healthy situation. The first act
of clearing a country is generally a
signal for bilious fevers provided the
cutting down the timber opens a wet
soil to the action of the sun, or opens



a passage for putrid exhalations from a
 neighbouring river, creek or millpond.
 in country thus opened, will remain
 sickly for many years if improvements
 become stationary. This is very much the
 case in ~~the States of~~ Delaware, Maryland
 & in all the States to the southward of the
 Potomac where large populations in
 lands render it impracticable for the
cultivation, to keep pace with the deca-
-ring of a country, and hence the sickli-
-ness of those States; but in the northern
 and middle States where cultivation
 which consists in draining low grounds,
 confining overflowing streams of water,
 and dissipating moisture in grass &
 grain, I say where this cultivation
 succeeds the clearing a new country, it

V The Diseases in Current Situations are chiefly inflammatory Obstructive fevers and particularly what that form of the latter, which is called dysentery, but ^{to} which I shall hereafter in another place give the name of the intestinal state of fever. —

5
now becomes healthy. The State of Con-
necticut about the year ~~1730~~ 1730 was
nearly as subject to bilious fevers as
as any of the Southern States, but they
have yielded to that general cultivation
which has been introduced into that
country by the small & great divisions
of landed property, which have taken
place in that enlightened & happy State.
& Towns & Cities are the jails & graves of
the human species. I have their vices &
crimes to the moralists and the Officers
of justice. My business is only to take
notice of ~~the moral~~ ^{the moral} causes of their diseases. These
are I am ^{in an atmosphere} ~~in an atmosphere~~ rendered impure by the number
of persons who constantly inhale it, by
the exhalations of dirty streets, docks, yards
gardens & various offensive manufactures.
and



and by their great heat occasioned by the
 reflection of the rays of the Sun from
 pavements & houses, and the subsequent
 confinement of the hot air. ^{a 2nd} ~~But there~~
~~another~~ cause of the unhealthiness of
 cities, ^{arises from} ~~the~~ animals & vegetables upon
 which their inhabitants feed, being forced by
 strong manure, are more disposed to put
 on a putrid disposition than animals
 & vegetables raised in a natural soil, ^{3rd and}
 at a distance from cities. Lastly, the
 water in cities, from the filth of streets,
 gutters & privies descending into the cisterns
 & mixing with it, is ^{a fruitfull} ~~the cause of~~
 source of disease particularly of bowel
 complaints. In consequence of the
 operation of all these causes it has
 been stated by Dr Price that in large

V Dr Price adds further that a man
loses a portion of his health or life who
settles in London before he is 30 years
of Age, for the System at that period
acquires a Vigor which enables it to
resist the numerous Curres of Diseases
that have been mentioned. It was
probably from a knowledge and pain-
-ful Contemplation of these facts that
the poet in *Corpus exclaimis* -

cities one person dies in every 19. 22. or
23, every year. In moderate sized towns
he supposes the mortality to be one, in
from 24 to 28 of the inhabitants - in
villages one in from 40 to 50. In
London he tells us one half die under
3 years old, and in Stockholm & Vienna
one half under 2 years old. In Man-
chester one half die under 5, In North-
ampton one half under 10 - But
mark! the difference between the mor-
tality of cities & towns, and a country
situation. In a part of the country
in Yorkshire in England, one half
of all who are born live to be ^{six} ~~sixty~~
& forty years of age. Well ^{might} ~~the poet~~
~~from a knowledge of these facts say~~
but "Man made cities, but God



8
made the country." He is I believe
wrong in this assertion, for the first
city we read of in ^{history} ~~a city~~ was built not
by a man only, but by a murderer,
~~in order~~ ~~by a murderer of a brother,~~
in order probably that he might destroy
in the business, persons beloved of a
city, the ^{republic} ~~man~~ ^{he} felt in consequence
of having ~~murdered~~ imbrued his hands in
the blood of his brother. The diseases
induced by the causes that have been enumerated
are bilious fevers - consumptions - and
near all the train of nervous diseases. It is
unmistakable the dysentery is less common
in cities than in country situations, &
that persons who have lived in cities are
less apt to be affected with it than persons
who have lived in the country. While



9
I was at the Jersey College & Dysentery
broke out among the Students, I think
in the year 1759, but not a single boy
from New York nor Philad^a was affected
with it. I have since ascribed it to the
city boys having previously lived upon
more cordial diet such as tea, Coffee &
wine than the Students from Country
situations who at that time lived chiefly
before they came to the College upon
with ~~cordial~~ ^{other} ~~cordial~~ ^{more} less cordial
articles of food, by which means their
bowels were in a ~~greater~~ state of irrita-
-tion from debility to be affected by
the disease. — Dr Aeghous mentions
a similar fact. He tells us that a
Dysentery prevailed at one time ~~and~~ ^{among}



^{poor}
 the inhabitants of a Village in Minorca,
 who had fed for some time upon Dam-
 -aged wheat, while ~~there~~ a number of
 Soldiers who were quartered in the same
 Village, and lived upon cordial provisions
~~are~~ escaped it. I have seen many cases of Spo-
 -radic dysentery in Philadelphia but have never once seen it ^{epide-} ^{mi-} ^{mic.}

3 Situations are influenced with respect
 to their healthiness by the nature of their
 soil. A sandy soil by retaining more heat,
 and when white, by reflecting it, disposes
 to all the diseases of hot weather, and
 to diseases of the eyes.

4 Mountainous Situations are in general
 healthy, and the longest lived ^{people} are found
 in them, but there are now & then
 exceptions to this remark. The British
 Soldiers who occupy the heights in the



Neighbourhood of the City of Calcutta,
 are always more sickly than the soldiers
 who are quartered in the Vallies below them,
 and hence ~~they occupy~~ those heights
 are occupied in rotation by them.
 Dr Victor in ^{relates a} similar fact of the
 greater unhealthiness of a high & more
 elevated situation in St Domingo than
 below it. The mountains in these cases
 arrest the exhalations from the Vallies
 in their ascent from or descent to the
 earth. It is certain mountains more
 especially when they are covered with
 trees arrest clouds of rain. Of this Mr
 Volney mentions a striking instance in
 his travels into Syria. A hill near

V level of the country around it near
Petersburg ^{in Virginia} upon which it is always more
sickly than in the plains below it.

a monastery ~~which~~ upon which no
 rain had fallen for many years,
 was plentifully watered with it upon
 planting it with a number of stately
 pine trees. There is a hill 80 feet above the
 vicinity to marshy grounds ~~under~~ ^{it}
 situation unhealthy, especially if ~~they~~
~~be~~ ^{be} exposed to the winds that pass
 over those grounds. ~~The cause of the~~
~~are conveyed to the~~ Intermittent and
 bilious fevers follow the erection of mill
 dams every where unless the exhalations
 from them are restrained by buffering
 a number of forest trees to remain
 around them, or unless this plan is
 supplied by planting around them

V of the unhealthiness of a situation near a
marshy country, ^{the Rev} Dr Morse informed me of the
following fact. In the year 1783 he married
14 couple at a place called Midway in Georgia.
In his visit to that place in 1810, 23 years
afterwards he found but one of those 14 couple
not separated by death.

[Is the salt water near the shore impreg-
nated with the exuvia of living & the
the component parts of dead fish washed
there by the waves of the sea? It is certain
intermittent febrile diseases are often induced
by it in the season for those diseases, and they
are the effects we know of putrid exhalations.

U The exhalation from woods is supposed
to be one third greater from an equal
extent of water - of course a situation near to
them must produce ^{the diseases} of a moist Atmos-
phere in a simple or compressed state.

trees of rapid growth. mountains, houses
and even water have the same salutary
effect in restraining the passage of malarial
infectious matter, and thereby of preventing their
producing diseases. V

6 Vicinity of a town or country to cleared
or woody countries, by ^{its influence upon} ~~altering~~ the temperature
of the air, subjects a situation to all the dis-
eases that depend upon its sensible qualities. W

7 A situation near the seashore ^{pre-disposes} ~~renders~~ to
pulmonary Consumption & Rheumatism.
~~Dis~~ Even Diseases of all kind appear to
more inflammatory Character near the
Sea, than they discover at a distance
from it. It is remarkable the sea air has
no such effects at a distance from the shore.
Perhaps its morbid effects may be increased

V may not this arise from the same
cause which contaminates the air near
the seashore?

Is calling in the action of ^{putrid exhalations} ~~infectious~~
-tions to account for it. There is something
specific in its nature. Scurbutic patients
often die as soon as they inhale it.

by being mixed with land air, & helped by
 the ~~excess~~ passive exercise ~~upon~~ ^{imposed}
 upon the system by the motion of the
 ship. ^{The exhalations from} ~~the~~ ^{these} ~~rooms~~ ^{places} in which the
 salt and fresh water unite their streams,
 are generally ~~more~~ ^{more} productive
 of fever than the exhalations from grounds
 moistened only with salt, or fresh water.
 Perhaps ^{a chance} ~~the mixture~~ ^{is} alike unfriendly to
 health may be induced in the mixture of
~~the air~~ of the sea & land air without
 & there are several situations of a local
 nature that influence health & life.

1 a residence in cellars is always unhealthy.
 Even servants who spend the day only in
 cellar kitchens soon ^{become} ~~appear~~ pale, and
 disposed to pulmonary consumption &c

✓ The wealthy citizens of ancient Rome
never occupied their stone houses until
they had been built ^{and} ~~a~~ year.

Rheumatism.

2 a long residence in ~~the~~ a hospital produces the same effects in the System.

3 a dwelling house often becomes a source of disease. 1 from being built of green wood. I have taken notice of this fact in the 4th volume of my inquiries. 2 from being built of stone recently taken out of the ground, and in that state impregnated with matter of a vegetable or mineral nature which undergoes such changes by the action of the sun and air upon it, as to emit an unwholesome Vapor. 3 from being inhabited too soon after it is plastered or painted. Catarrhs have arisen from the former & head ache and nervous diseases from the latter cause. 4 from its having a close
a sink in its kitchen & on



Cellar connected by a stair case with
 the chambers of the house. The speedy
 putrefaction of meat, the green mould
 upon bread, and other vegetable aliments,
 the speedy rust upon iron utensils, and
 the hot and offensive odor emitted by
 green wood when kept in those cellars,
 all indicate the unwholesome quality of
 the air which stagnates in them. Of
^{the effects}
~~fact in~~ ^{fact in} ~~effects~~ of green wood ^{when} ~~in~~
 confined during a summer in a close cellar
~~you~~ ⁱⁿ producing fevers you will find an
 instance mentioned in the 4th volume of
 my inquiries. Sometimes cellars are
 rendered unhealthy by ~~retaining~~ imbibing
 & retaining rain water from the cistern
 that surrounds them. ^{a fever} ~~has been~~ was

from privies being placed so near
the houses as to emit this factor con-
stantly into them. ~~Consequently~~ Several
members of a family were infected with
the yellow fever from this cause in one
of the years in which it prevailed in Philad^a.
- ^{this factor} ~~They~~ much of times produces sickness at
stomach and Diarrhea. The ^{effluvia} ~~factor~~ from
a hogstye, and from a Duck pond ^{were} ~~was~~ the
cause of fever in ^{this city} ~~two instances~~ many cases
indispositions I have no doubt have been
produced by them.

produced for 20 years in the house of a
 Clergyman in New Jersey ^{from this cause, & it} ~~until~~
 was not suspected of being the cause, ~~until~~
 it ceased by his removing into an adja-
 cent house. & from its age especially if
 it be composed of wood, which when de-
 caying emits a Vapor which has been
 known to produce an intermitting fever.
 This is taken notice of by Dr Haller. & from
 a want of Cleanliness. The fifth which pro-
 duces diseases is generally concealed in a
 yard, a cellar, a closet, or a garret. & from
 small & smoky rooms, & those which
 oblige the persons who occupy them to open
 doors & windows in cold weather, & thereby
 expose themselves to Catarrhs which often end
 in pulmonary Consumptions. & from



being too closely surrounded with trees by
 which means the ^{proper} ~~circulation~~ circulation
 of ~~the air~~ fresh air through a house is
 prevented. The air is moreover rendered
 damp by the exhalation from the
 trees, and sometimes in the summer the
 autumn it is ~~rendered~~ rendered impure by
 the putrefactions of the leaves which fall
 from those trees. 10 from the unwholesome
 quality of the water consumed by the family
 that inhabits it. Of this I have known a
 remarkable instance in this city. These
 remarks Gentl are highly interesting to the
 lives of your patients as well as to ^{your own} ~~the~~ reputations
 as physicians. Where a family ^{on a community} is exclusively
 & frequently affected with sickness, some
 of the causes that have been mentioned should
 be suspected of producing it. Chas. Ault as



14

well as chronic diseases are often induced by
them which are ascribed to other causes. ~~In~~
support of this ~~Opinion~~ I shall mention
three facts. In the year 1713 a fever affected all
the professors, students, and even the printer of
the University of Altdorf in ~~Thuringia~~. These
~~Students lived in different parts~~ In all
cases therefore in which diseases resist the
remedies that usually cure them, ~~these~~
local remote cause should be suspected
of acting counteracting them, and our
patients should be advised to change their
habitations.

Let us next inquire ^{what} ~~into the~~ Dis-
-cases are produced by a change of situation.
1 Persons who migrate from one country to
another, frequently contract fever by it,
especially when



They pass from a Cold to a warm Climate.

Europeans who ~~arrive in our Country~~ ^{after} ~~the Antismian~~ are ~~most~~ ^{liable to be affected} ~~by them~~ upon their arrival in our Country. It is remarkable they are more ~~liable to be affected~~ ^{predisposed to} ~~by them~~ in the second, than in the first year after their arrival. Perhaps a year's residence in our Country is ^{that} necessary to produce this predisposition which favours the Attack of the fever. It is called a seasoning.

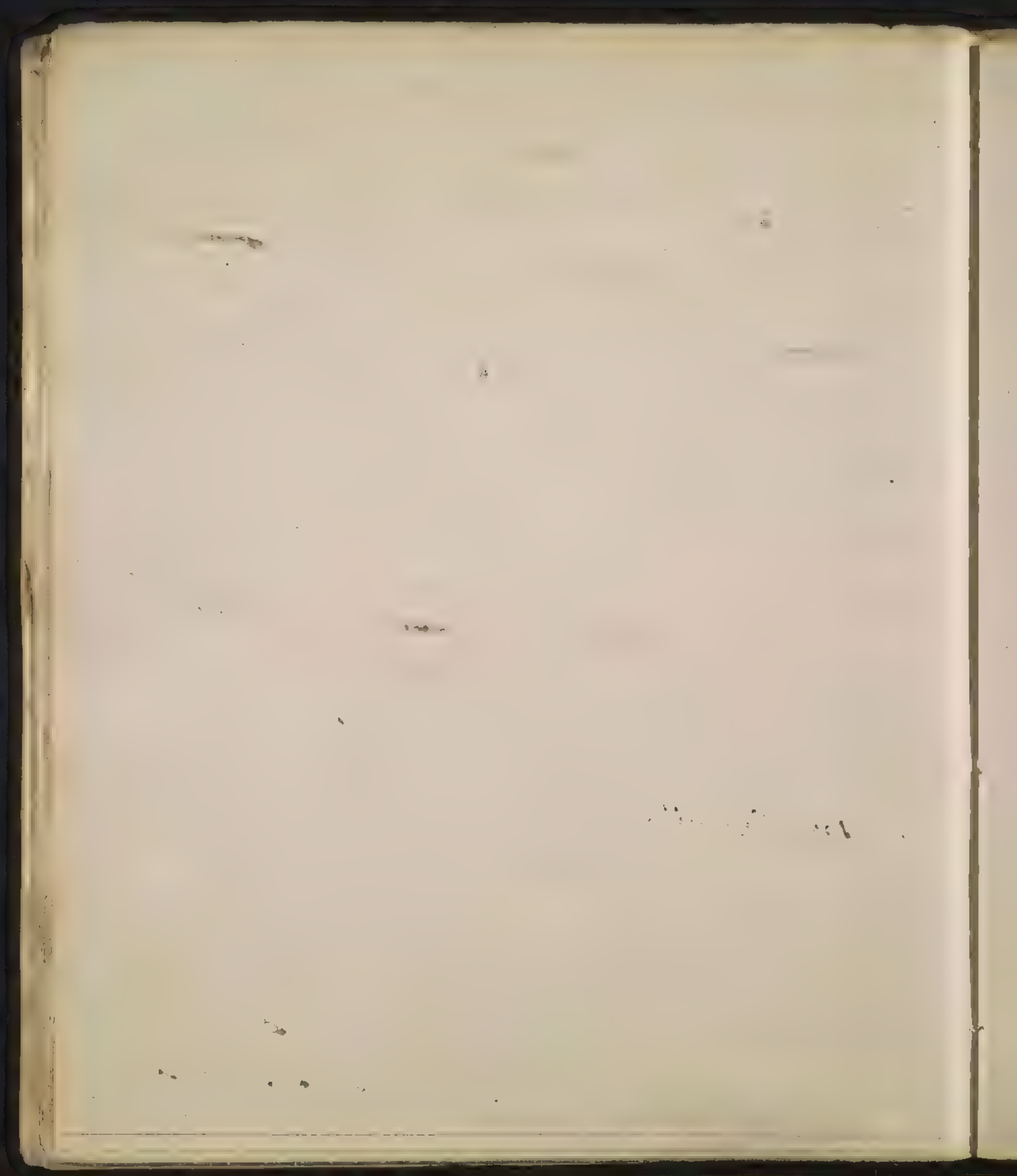
Persons who leave a sickly Situation in which they have enjoyed good health, and remove into a healthy Situation are often affected with sickness immediately afterwards, which they would probably have escaped, had they remained at home. This must be ascribed to emotion, & a variety of new impressions exciting



The dormant seeds of a fever into action,
which would ~~have~~ otherwise been passed
inoffensively out of the body. Situations

3 The natives & old settlers of richly ~~low~~ ^{low} ~~land~~ ^{land}
who ~~have~~ have them for a while, & since
describing the prevalence of an Epidemic are
year after year affected with it in common
with new comers. I & one of New Orleans
informed me that, ^{this} was generally the
case at New Orleans, ^{while the} ~~the~~ natives ^{and} ~~old~~ ^{old}
settlers who do not withdraw themselves
from the habitual impression of the mias-
mata of this yellow fever, always escape it.
The same thing takes place in Charleston in
South Carolina.

4 Old people who remove from a marshy
situation, to a high & healthy country, frequently
die soon afterwards. The stimulus of miasmata



However injurious to young & middle-aged
 persons, becomes in old people one of the
 substitutes for the decay or loss of other sti-
 muli. The abstraction of this ^{artificial but} habitual,
 stimulus I suppose to be the cause of the
 death of old people. Plants die soon after being
 removed from the vicinity of marsh exhalati-
 ons & probably from the same cause.
 Persons who make long sea voyages are
 often affected with Catarrhs when they approach
 land. I ~~dropped the sea with~~ ^{the captain of the} vessel in which
 I went to England in the year 1766 I well
 remember came into the cabin ^{with his} in a
 fine sparkling with
 fit of joy and congratulated his passengers
 upon our being near to our wished for
 port, and gave as a reason for it that he
 had been sneering ^{to} which he said he had
 always been subject when he came near
 to the land in all the voyages he had

or
1: in many instances
V and death is ~~often~~ ~~caused~~ by sudden
by destroying the excitement of the
system, ~~only~~ but they often produce
numbness of the limbs. and in-
inflammation & vesicles upon the
skin. 2 They produce diseases

was made. At this time there was
 alteration in the color of the water, now
 was a ^{bird} land ~~bird~~ to be seen near our
 vessel. ^{In two or three days} ~~A day or two~~ afterwards we ar-
 rived in Liverpool.

I have taken a good deal of pains to
 discover whether Thunder & lightning has
 any effect in ^{producing} ~~producing~~ ^{in the way of} ~~in the way of~~ ^{independently} ~~independently~~
 of the terror they create. & of the change they
 induce in the temperature of the air. There
 are some people who are born with, or
 who acquire a thunder phobia. I have known
 several such persons in whom the sight of a
 dark cloud produced the greatest distress, and
 the sound of thunder, sickness, cold sweats &
 fainting. We had a lady some years ago in
 this city [Mrs Reynolds] who used to exhibit
 all the appearances of a person in the
 agonies



of death during a ~~thunder~~ thunder storm.
 Such was the debility it induced upon her
 system, that it became necessary to give her
^{several glasses of}
~~from a pint to a quart of~~ spirits to keep
 her alive. It was remarkable they never
 intoxicated her, nor did she ever taste them
 at any other time. I have known an
 instance of Epilepsy being induced by a loud
 clap of thunder in a little boy in this city.
 Thunder & lightning induce diseases by
 altering the temperature of the air. They
 generally render it cool or cold. I have
 known the Colera morbus induced by them
 when they have acted in this way.

If there is a Possibility or idiosyncrasy in some
 people which renders them liable to disease,
 while the ^{clouds are passing} ~~sun is visible~~ over them charged
 with electricity, but which do not discharge
 any part of it in an audible or visible

✓ She was right in her prediction. The
thunder ceased from that moment.

manner. I crossed the ocean with a
 lady who could always tell when ~~the~~ the
 clouds were
~~the~~ ^{air} ~~was~~ filled with electrical matter by feeling
 a head ache. ^{one day after several successive claps} ~~the~~ ^{of thunder} ~~from~~ ^{and after} ~~the~~ ^{the} sky became serene, ~~and~~ ^{and} ~~nothing~~ ^{nothing} indicated the ~~gust~~ ^{gust} to be over, I from
 the Deck of the ship into the Cabin & told her
 the Gust was over. "You are mistaken"
 said she, "for I still feel my head ache." While
 we were conversing, a ~~clap~~ ^{clap} of
 thunder burst over the ship. "Now said
 she - we shall have no more thunder. &
 my head ache is entirely gone". This ~~new~~ ^{new}
 & peculiar sense of ~~electric~~ ^{an} approaching thunder, ^{gust}
 in the human body is given to ~~some~~ ^{some}
 animals. The leech ~~exhibits~~ ^{discovers it by} certain
 peculiar ^{while it is approaching}
 motions in the water. ~~before a~~ ^{before a}
~~storm~~ [The famous poet Mr Cowper

✓ Count Stolberg in his travels mentions
a still more extraordinary effect of an
earthquake that occurred at Oppido in
Italy on the 5th of Feb: 1783. He says
the two following years ~~the women~~
either did not conceive at all, and that all
such as did ^{conceive} ~~did~~ had abortive, or dead
children, or children that died soon after
their birth. [Was this the effect of ~~terror~~
~~in~~ chronic or protracted ~~terror~~ or of
an unwholesome ~~inhalation~~ ^{gas} left in the air
by the opening of the earth? But further
Dr Boerhaave mentions that he once felt a
giddiness in his head ^{while standing in a bookeller's store} ~~during the time of~~
in Leyden during the time of an earthquake.
The same symptoms with a sensation like
an approaching apoplexy, attended

Often beguiled his melancholy by observing them.]

I have not found that the Aurora Borealis has ever produced any disease, but many diseases are ascribed to Earthquakes. They act in two ways, 1 by the terror they excite, and 2 by the exhalations from the openings they leave in the earth. The great earthquake in Jamaica in the close of the 17th century was followed by a ^{pestilence} ~~fatal~~ ~~exhalation~~ from this cause, ~~off~~ ~~the~~ ~~which~~ ~~carried off three thousand people.~~

Found in creeps or disproportioned to the excitability of the system has often produced both general & local diseases. The noise of fire arms seldom fail of producing a transient fever upon the onset of a battle. It is felt in a frequent pulse - at dry, or clammy mouth, and a burning sensation in the ears.

with sickness at stomach were felt by
many people during the Earthquakes that
occurred on the Mississippi in Decr 1821.
These morbid phenomena were probably induced
partly by terror, ^{and} partly by the motion of the
earth, ~~and perhaps by~~

V in the streets, never failed to produce
profuse hæmats in a patient of mine
who was ill with ^a pulmonary
consumption. The

~~being an premature parturition~~ The
 firing of cannon Dr Thompson says has
 induced Syncope & Death in the last stage
 of Puerpery. It has in one instance brought
 on Death in a Child Subject to Epilepsy.
 The ringing of bells has induced Abortion.
 The rattling of Cannons & the ^{cries} of them:
 The barking of dogs & ~~the~~ ^{cries} of chim-
 neysweeps in the streets, have often in-
 duced relapses & perhaps ^{Death} in fevers. The
 noise of a horse's feet has excited a parox-
 ysm of Epilepsy - and lastly two instances
 have occurred within my knowledge of
 Deafness being induced ~~by~~ ^{by} in ^{soldiers of the} Artillery of
~~fired~~ by the firing of cannon - the one
 in a naval, the other in a land en-
 gagement.



of the influence of the heavenly bodies
upon the health & life.

In ancient & modern times there has
existed a Science known by the name
of astrology. It taught that the planets
influenced the texture of the body and
the nature of the mind so much at
birth as to determine the future con-
-duct and destiny of every person that
came into the world. The influence of
the planets was not confined to the fate
of man. It was supposed to affect all
the material creation & particularly
to be the cause of pestilential diseases.
All errors are the results of misap-
-prehended, perverted, or of unduly



~~partially~~ extended truths. The errors of the
 Astrologists are ^{of this nature} ~~the effects of~~ ~~frivolous~~
 truths. They have only extended ~~that~~ ^{an imaginary}
~~truth too far in ascribing~~ ^{worked in}
 influence to all the planets over the body
 and mind of man, ^{which should have been} ~~it should be con-~~
 fined wholly to the sun - moon, and
 over earth, the influence of each of which
 has been acknowledged by physicians in
 all ages & countries. ~~of the~~ I shall therefore
 make a few remarks upon each of them.

I have already spoken of the ^{morbid} effects of
 the sun upon the body as far as it is the
 source of heat. It remains now to mention
 the effects of its light, and of the darkness
 induced by ^{the} ~~its~~ absence ^{of its light} in the production of dis-
 eases.



1 The excess of the light of the sun produces inflammation in the eyes, also temporary blindness. The latter disease is called Myetalo-
 -opia. In Ruffia it is called Tern blindness. Pa-
 -tients affected with it see only in the night.
 In cold countries the reflection of the sun's
 rays from the snow is sometimes so great
 as to produce not only inflammation of the
 eyes, but an inflammation of the skin of
 the face. I have met with two cases of
 coming on with the rising & going off with
 the setting sun. In habits rendered irritable
 by disease, ~~or excess~~, the stimulus of the light
 of the sun is often a painful impression.
 Luxury ~~has~~ sometimes ~~the~~ produces the
 same excitability to of the system to the
 stimulus of light, hence we read that



32

The Roman ladies ~~and~~ often fainted ^{on} from
were convulsed from the sudden action of
light upon their bodies.

The Abance of the Sun, or Darkness
sometimes produces temporary blindness from
the want of the stimulus of light. I formerly
mentioned two instances of wakefulness from
this cause. It certainly reduces the frequency
and force of the pulse, and of course cannot
fail of producing serious effects upon the
system when it is at par or below it in
arterial and nervous diseases. But Dr.
~~Trautlet~~ has mentioned an experiment
~~from~~ in which it was the momentary inter-
-ruption of the rays of the sun by a cloud,
has been known to increase the pains &
danger of a yellow fever according to Dr. Lining,
and where is the Hypochondriac patient who

is not made worse, by a Dark & cloudy Day? It is in part owing to the debility induced by the Abstraction of light that persons so often make their first Attack in the Night, and that so great a proportion of Deaths occur in the night. Even the Color of the Skin is affected by Darknefs, hence the pallid faces of persons who spend their days in Dark Kitchens, or who live in a scanty light. But Dr Saurtelle has mentioned an experiment from which it appears probable that ^{the influence of Darknefs is not} ~~not only the Heat~~ confined wholly to the ~~arterial & nervous systems~~ ^{arteries}. But that ~~the proportion~~ ^{the absence} of light. He exposed two vessels half filled with water to the light of the moon when it was in its greatest splendor. One of these vessels was



protected from its direct rays by means of an Umbrella. The other was uncovered. At the end of nine days, the uncovered vessel had lost two lines, & the $\frac{1}{16}$ of a line of its depth of water, from the influence of the light of the moon upon it. From this fact it would seem that the evaporation from our bodies, that is perspiration is liable to increase and diminution from the presence, or absence of light, and of course that the latter may predispose them to disease, or become its exciting cause.

2 The influence of the MOON is felt by the inanimate, as well as the ~~inanimate~~ animate Creation. Water, air & vegetables are affected by it. The animated part of Creation from man down to the oyster discover marks of its influence. The latter is always more fat when the moon



is full than at any ^{other} time. In the healthy
 state of the body we are ^{seldom sensible} ~~never~~ ~~conscious~~ of any
 lunar influence, but in sickness, ^{in which} a ~~new~~
~~new~~ sense seems to be opened, to ~~convey~~ or the
 common senses to be rendered more exquisitely
 sensible, its influence is felt in the most
 obvious manner. I shall briefly mention the
 diseases ⁱⁿ which this influence is most per-
 ceptible. They are

1. Fevers. Diemerbroek long ago remarked
 that more people died with the plague,
 three days before, & three days after the full &
 change of the moon than at any other time.
 Dr Balfour confirmed these remarks in the
 fevers of Bengal. Mrs Holloway chaplain to
 the British legation at Constantinople says
 the same thing occurs in the plague in that
 city. These remarks have been confirmed at



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the West Indies by Dr Jackson & in Barbadoes upon
 the ~~Caribbean~~ American Continent by Dr Pinkard.
 They have been further established in this city
 in the yellow fever of the year 1797, as you
 may see mentioned in the history of the fever
 of that year in my inquiries.

2 Dr Mosely says Haemorrhoids generally attend
 at the full & change of the moon. He mentions
 an instance of it in a British Officer. ~~in~~ In
 the year 1804 I met with two instances of this
 disease within those lunar periods - the
 one, the 2nd day after a full moon - the other the
 day after it was full.

3 I have known one instance in which
 prostrations of the Gout occurred only at the
 full & change of the moon.

4 Dr Thibaut asserts that pertussis is
 hastened by a full moon. This was admitted
 by the ancient Romans - hence the ~~words~~ ^{word} of

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by the name of Lucina 37
was invoked to preside over & facilitate the
birth of children. "Iste fane Lucina, novus
huc templa ingreditur sacerdos." Tibullus.
Dr Waller quotes from Benedictus Sylvaticus
the history of a calculous patient who always felt
~~some~~ pain during the increase, & none during
the decrease of the moon.
Madmen ^{are subject to} ~~it is said have some violent paroxysms~~
of derangement ~~at~~ at the full moon. This
fact is so well established, that the disease has
acquired the name of lunacy from it. Even the
mind in irritable habits sometimes loses its
ordinary tranquillity from lunar influence.
I once had a patient in this city who was re-
marked by his wife to be more passionate &
ill humoured when the moon was full than
at any other time. ^{influenced} ~~because it is said is~~
~~regulated by~~ ~~the~~ the phases of the moon.
Epilepsy & Asthma discover marks of lunar

V 9 D^r ~~mostly~~ ^{more} people die
During the three Days before, and After the
full moon, and on those Days, than
at any other times, and produces a long
list of distinguished men who died
within those periods. [It is possible the
moon may have had an influence in
those cases, but we must recollect the
chances are ~~mostly~~ equal to its being
so, from the ~~non~~ lunar Days being the
same as the ^{non} lunar Days in every lunar month,
that is twenty eight.] I have kept an account
for several years of the relation of the Days
on which my patients die to the full and
change of the moon, and have generally
found the numbers nearly the same on
lunar & non lunar Days. It is possible

influence. Dr Taurin an Italian physician relates the case of the latter disease in which the paroxysms always ~~always~~ came ~~on~~ on just before a new & full moon.

During the lunas periods, & worms are more troublesome ^{the lunas periods} particularly when it is full than at any other time.

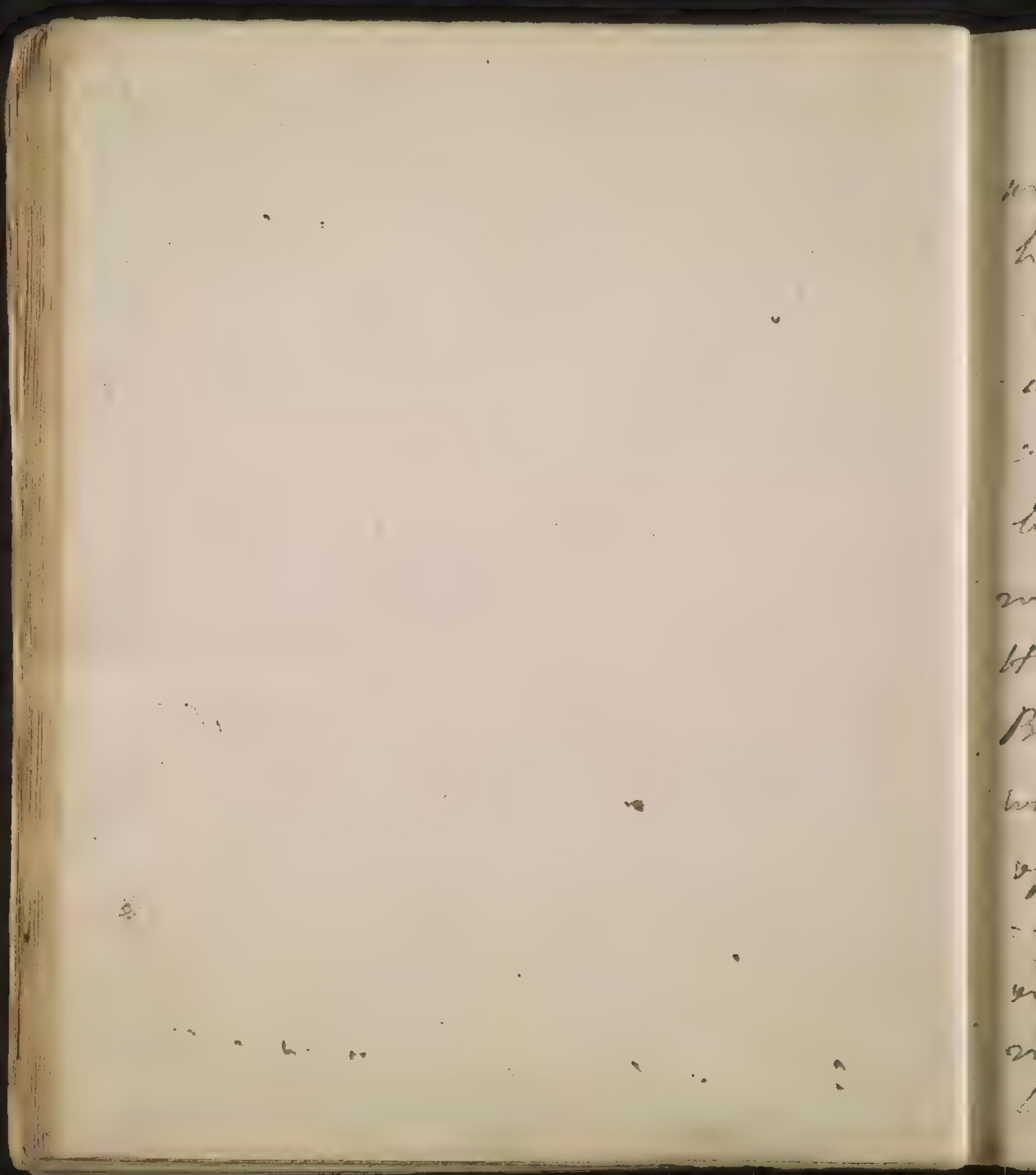
✓ I have thus stated the principal facts relating to the influence of the moon in diseases. It has been generally ascribed ^{to a change} ~~the~~ in the density ^{of the air} of the air, and particularly to its rarefaction during ~~its~~ ^{the} greatest influence of the moon. But if this were ^{is only cause,} ~~the case,~~ we should see similar changes in diseases from similar changes in the air every time they took place. From many circumstances I am disposed to ascribe the influence of the moon ^{in diseases chiefly} to the greater or less portions of

Deaths from
this would not be the case if the ~~cases~~ ^{cases} which
~~formed~~ chronic Diseases could be separated
from such as were acute, for the effects
of the ~~more~~ ^{more} are felt chiefly by the latter
Diseases.

light reflected by her upon our globe, acting
 upon the body according to its varied posi-
 tion to be affected by them. we have
 taken notice of effects of a more sensible na-
 ture from the ^{presence, ~~off~~ and} ~~light of the sun~~ absence, ~~on~~
 and even ^{from the} diminution of the light of the
 sun. The late Dr. Montagu declared after
 five years residence in our hospital that
 he never had seen ^{unmarked} any changes in ~~internal~~ ^{the mania.}
 cal patients at the lesser periods. & Dr. Hall-
 sam I shall say hereafter has said the same
 thing of the maniacs in Bethlehem Hospital
 in London. He ascribes all those changes
 in madness which have been ascribed to
 lunar attraction wholly to different position
 of light acting upon ^{our} the system. One of the
 apothecaries of the hospital Mr. Thomson

V G Lind tells us that in a fever which
prevailed at Bengal in the year 1762
of which 30,000 natives & 800 Europeans
died, all who recovered had relapses during
an eclipse of the moon.

to whom I committed this question for
 his observations agreed perfectly with Dr
 Hutchinson & Mr. Haslam in the
 result of them, and as a proof that light
 was the cause of most of the changes in
 madness, he said he had uniformly ob-
 served the maniacs to become quiet &
 silent with the going down of the sun &
 to become noisy with the dawn of light.
 They all became suddenly silent ^{during the partial darkness} with the
^{produced by the} eclipse of the sun of the 16th of June 1806.
 3 eclipses of the ~~sun~~ ^{and sun} moon have been
 observed to act more powerfully upon the body
 than the moon in her ordinary revolutions.
 The famous Lord Bacon used to faint when the
 moon was eclipsed. Ballonius says many
 sick people died suddenly during an eclipse
 of the moon on the 21st of January 1643.



The named Biga died at the instant of
 an eclipse of the sun. Baglivi tells us that
 he found his the pulse of a patient to be-
 come suddenly irregular during the e-
 clipse of the sun, and that he was
 at the same time affected with Vertigo-
 by it. But Dr Grainger relates a still
 more extraordinary fact under this head.
 He says in the year 1746, four thousand
 British Soldiers then in Holland were seized
 with intermittents on the day of the eclipse
 of the sun. The mercury fell $1\frac{1}{2}$ in the Ther-
 mometer & the rose several degrees in the Barometer
 on the day of the eclipse of the sun just now
 mentioned in this ^{city} and in the town of Poole.
 Cattle retired to their sheds, & fowls to their



roasts, and the madmen of our hospital as I just now said, became suddenly silent, but I did not perceive the least change in the diseases of any of the patients I was then attending, at the time, nor after it.

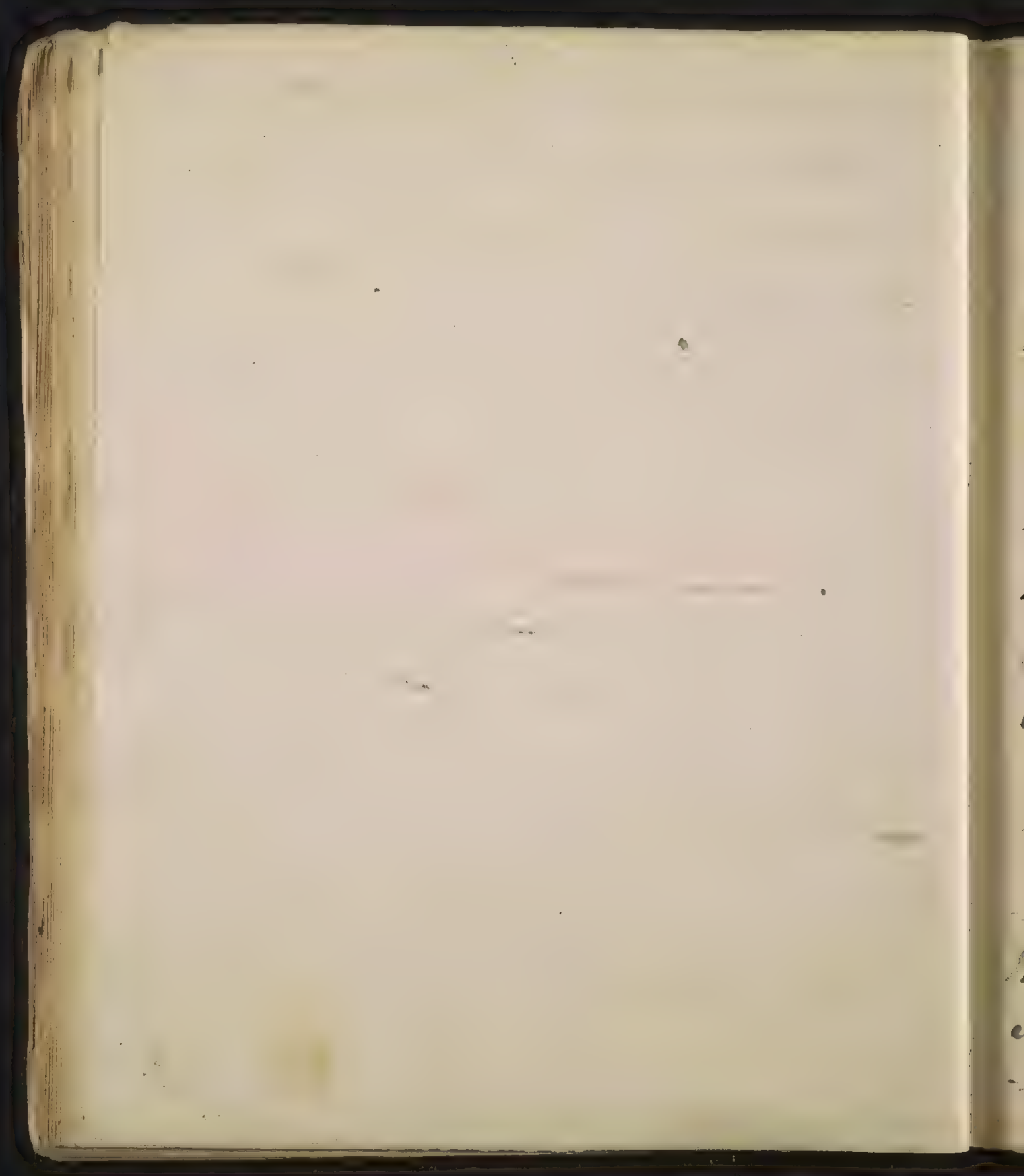
Upon the subject of the influence of these eclipses upon the human body, I am disposed to ascribe them chiefly to the sudden abstraction of the stimulus of light. Perhaps the terror inspired by them may ^{thus} have aided that cause. It is certainly ^{more} common in the infancy of our astronomical knowledge, & where ^{it was} ~~they~~ ^{it was} blended with a good deal of superstition, than they are at present. The only recent instance I have mentioned of the morbid effects of an eclipse was in a number

✓ Dr Currie says $\frac{1}{4}$ more febrile patients
are admitted into the Infirmary of
Liverpool at those periods, than before
or after them, and the celebrated Mr
Richardson (author of ~~the~~ *the* *Grandison*
& other popular novels) complains in
one of his letters ~~to~~ to Dr Young
late published, of suffering unusual
distress from a nervous ^{Diagnose} ~~Diagnose~~ during the
~~Acute~~ *epidemic* *epidemic* *epidemic*. All these morbid
affections of the body

of soldiers who are generally ~~less~~ persons
of little education, and much disposed to
superstition.

3 The body puls^{in disease} the annual & diurnal
revolutions of our earth. Dr Darwin has
remarked Apoplexies & palsies to be more
frequent about the Vernal & autumnal
equinoxes than at any other times of the
year. ~~Perhaps this~~ may reasonably be
ascribed to the greater fluctuation of the
weather between heat & cold, moisture &
dryness, calms & winds that take place
ⁱⁿ those ~~two~~ the months of March and
September.

The Diurnal Revolutions of the earth
have been supposed to be the cause of the increase
or exacerbations of fevers in the evening.
It is certain the pulse becomes more



frequent than natural between the hours
 of 9 and 12. I took notice of this formerly
 in speaking of the changes which the
 pulse underwent in the course of many
 days and nights. ^{It has been observed} ~~Barometer has~~
^{I said formerly} ~~ways~~ to rise and fall in its frequency with
 the rising & falling of the mercury in the
 Barometer. ^{It was in consequence of} ~~from the influence of~~
 observing the uniform influence of the
 evening upon health that Dr Darwin
 has elegantly called it the "Antumn of the
 Day." The fact is of great practical ap-
 plication. It should lead us to consider
 the system in all chronic diseases. It even
 in chronic debility as in a state of ex-
 -acerbation, or of morbid excitement in the

12.5

evening: ~~and~~ ^{and} to forbid labor, exercise, and
 company in such cases. Bydunham ~~was~~
 went further by advising his patients to go
 to bed early in chronic diseases, & weakness.
 It was probably from observing the bad effects
 of ^{sitting up late} ~~late hours~~ upon his patients without
 knowing that they originated in a law
 of the animal economy imposed upon it
 by the motion of the earth.

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